Amendments To the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A router device for use in a communication system having at least two telephone devices in communications with each other for transferring voice information therebetween through a packet switching network, the router device being coupled between one of the telephone devices and the packet switching network and for performing one of a plurality of types of compression/decompression (codec) operation on information being transferred between the telephone devices comprising:

a Digital Signal Processor (DSP) module responsive to an analog telephone signal from one of the telephone devices and operative to convert the analog telephone signal to a digital telephone signal and further operative to packetize the digital telephone signal for transmission to a remotely-located router device, the router device and the remotely-located device initially mutually negotiating to utilize a first type of codec, each sending to the other a list of one or more codecs that each supports and each deciding to use a mutually supported codec through the use of a predetermined protocol and during communications between the remotely-located router device and the DPS module, the DSP module for renegotiating the use of a second type of codec and switching from using said first type of codec to using said second type of codec upon detection of degradation in the quality of the voice information,

wherein, during communications between the remotely-located router device and the DSP module, the type of codec being utilized is repeatedly, mutually, renegotiated to dynamically change compression techniques to adjust for network usage thereby optimizing the use of network capacity and throughput and further wherein switching between the codecs is performed while a conversation is taking place between the two telephone devices yet avoiding substantial disturbance to users of the telephone devices.

Claim 2 (previously presented): A router device as recited in claim 1 wherein switching between the codecs is initiated by a user of one of the telephone devices.

Claim 3 (previously presented): A router device as recited in claim 2 wherein a predetermined code is assigned to correspond to each codec wherein the user specifies the type of codec to be switched to by entering the predetermined code corresponding to a desired codec into one of the user telephone devices.

Claim 4 (previously presented): A router device as recited in claim 3 wherein the predetermined code is programmably-alterable.

Claim 5 (previously presented): A router device as recited in claim 1 wherein upon detecting lower bandwidth available on the packet switching network for transmitting packet therethrough, the router device for switching from a codec resulting in the use of larger packet sizes to a codec resulting in smaller packet sizes.

Claim 6 (previously presented): A router device as recited in claim 5 wherein the router device for automatically detecting the lower bandwidth.

Claim 7 (previously presented): A router device as recited in claim 1 wherein upon detecting higher bandwidth available on the packet switching network for transmitting packet therethrough, the router device for switching from a codec resulting in the use of smaller packet sizes to a codec resulting in higher packet sizes.

Claim 8 (previously presented): A router device as recited in claim 5 wherein the router device for automatically detecting the higher bandwidth.

Claim 9 (previously presented): A router device as recited in claim 1 wherein the remotely-located router device detects the degradation in the quality of the voice information.

Claim 10 (previously presented): A router device as recited in claim 1 wherein the degradation in the quality of the voice information is due to loss of one or more packets.

Claim 11 (previously presented): A router device as recited in claim 10 wherein a threshold defines the number of lost packets that are tolerated triggering a decision to switch to the second type of codec.

Claim 12 (previously presented): A router device as recited in claim 11 wherein a plurality of packets form a message and each packet includes a sequence number indicative of the position of the packet with respect to other packets in the same message, the sequence numbers of the same message being in sequential order wherein a loss of packets is detected when one or more sequence numbers are missing from the received packets of the same message.

Claim 13 (previously presented): A router device as recited in claim 1 wherein the degradation in the quality of the voice information is due to an intolerable delay associated with the time for a packet to travel between the router device and the remotely-located router device.

Claim 14 (currently amended): A router device for use in a communication system having a first telephone device for causing the transmission of voice conversations and a first fax machine coupled to the router device, the router device responsive to telephone signals, carrying voice conversations, generated by the first telephone device and fax signals generated by the first fax machine and operative to transfer digital information, through a packet switching network, to a remotely-located router coupled to a second telephone device for receiving the voice conversations and a second fax machine comprising:

a digital signal processor (DSP) [DSP] module for carrying a user-initiated telephone conversation on a telephone line connecting the first telephone device and the second telephone device through the packet switching network, the DSP module further responsive to analog fax signals form the first fax machine and further operative to

convert the analog fax signals to digital fax signals and to [packetized] packetize the digital fax signals for transmission, through the packet switching network, to the second fax machine,

wherein the fax transmission from the first fax machine to the second fax machine takes place on the telephone line causing a temporary interruption to the telephone conversation thereby avoiding the need for telephone connection to be disconnected prior to the fax transmission and wherein frequency adjustments are made to compensate for differences in frequency between the fax transmission and the telephone signal.

Claim 15 (previously presented): A router device as recited in claim 14 wherein a fax overlay is transferred between the router device and the remotely-located router prior to transmission of fax information therebetween.

Claim 16 (previously presented): A router device as recited in claim 14 wherein the router device is further operative to detect a fax tone prior to transmission of the fax information and upon completion of the fax transmission the router device is operative to resume the telephone conversation.

Claim 17 (currently amended): A method for use in a communication system having at least two telephone devices in communications with each other for transferring voice information therebetween through a packet switching network, the router device being coupled between one of the telephone devices and the packet switching network and for performing one of a plurality of types of compression/decompression (codec) operation on information being transferred between the telephone devices comprising:

receiving an analog telephone signal through a telephone connection from one of the telephone devices;

converting the analog telephone signal to a digital telephone signal;

separating information carried on the digital telephone signal into packets of information;

initially, mutually, negotiating a first type of codec for communication between the telephone devices, each sending to the other a list of one or more codecs that each supports and each deciding to use a mutually supported codec through the use of a predetermined protocol;

using a first type of codec for transferring the packets of information between the two telephone devices through the packet switching network;

during communication between the telephone devices, renegotiating the use of a second type of codec;

switching to using said second type of codec upon detection of degradation in the quality of the voice information during the course of the telephone connection; and

during communication between the telephone devices, upon further detection of degradation in the quality of the voice information, repeatedly renegotiating to dynamically change compression techniques to adjust for network usage thereby optimizing the use of network capacity and throughput.

Claim 18 (previously presented): A router device as recited in claim 1 wherein the codec negotiation is performed pursuant to the H.245 protocol.

Claim 19 (previously presented): A router device as recited in claim 1 wherein the first type of codec utilizes a compression/decompression algorithm defined by any one of the standards: G.711, G726, G729 or G723.1 and the second type of codec utilizes a compression/decompression algorithm defined by any one of the standards: G.711, G726, G729 or G723.1.

Claim 20 (previously presented): A router device as recited in claim 14 wherein the connections are established pursuant to the H.225 protocol.